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### **Minutes**

#### **Board of Building Regulations and Standards**

#### **Fire Prevention Fire Protection (FPFP) Advisory Committee**

**RJA, Inc. - 1661 Worcester Road – Suite 501, Framingham, MA - Conference Room**

**September 25, 2014, 9:00 a.m.**

#### **1. Roll Call**

- |                                  |   |                                     |   |
|----------------------------------|---|-------------------------------------|---|
| a. Robert Carasitti Chair (RC)   | ✓ present <input type="checkbox"/> absent | g. Gary McCarraher (GM)             | ✓ present <input type="checkbox"/> absent |
| b. Dave LeBlanc V-Chair (DL)     | ✓ present <input type="checkbox"/> absent | h. Boston Fire Commissioner         | ✓ present <input type="checkbox"/> absent |
| c. Walter Adams (WA)             | ✓ present <input type="checkbox"/> absent | Paul Donga for BFD (PD)             |   |
| d. Don Contois (DC)              | ✓ present <input type="checkbox"/> absent | i. State Fire Marshal (or designee) | ✓ present <input type="checkbox"/> absent |
| e. Harold Cutler (HL)            | ✓ present <input type="checkbox"/> absent | Tim Rodrique for the SFM            |   |
| f. Rob Anderson (RA or designee) | ✓ present <input type="checkbox"/> absent | j. Kurt Ruchala (KR)                | ✓ present <input type="checkbox"/> absent |
| Mike Guigli for RA (MG) Chief    |   | k. Louise Vera (LV) or Alternate    | ✓ present <input type="checkbox"/> absent |
|                                  |   | Jeff Putnam (JP) for LV             |   |

The chair noted that with 11 members present a quorum was achieved.

General note on format: votes are noted as (Motion by: XX, Second by: XX, Vote: In Favor-Opposed- Abstaining).

#### **2. Review and approval of minutes from previous meeting**

The chair distributed draft minutes from the previous week and membership reviewed. TR commented on identification of part-time participants relative to votes. Chair agreed to edit minutes to reflect vote participation. WA recommended a change item 5, 1<sup>st</sup> paragraph: change “equivalent” to “essentially equivalent”. TR made a motion to approve the minutes with the noted suggestions and that the chair allowed to submit.

Motion: TR      2nd: GM      Vote: 9-0-2

HC & DC abstained on the basis they did not participate in the 9/16/14 meeting.

The chair noted that the printed agenda was in error and that the agenda as published in the meeting posting would be used.

3. Comparison of evaluations related to certain fire protection of wood frame elements in residential construction

The FPPF continued its discussion and work on review of the requested comparison. TR and Jen Hoyt of DFS presented a table summary of a comparison of AC14 and EC017. Criteria compared were categorized as follows:

- 1) Test Method,
- 2) Failure Method,
- 3) Condition of Acceptance/Evaluation
- 4) Test Specimen Design
- 5) Additional Information

The Chair identified that his comparison noted the same information. After some discussion amongst committee members, the committee was in agreement that the evaluation criteria between AC14 and EC017 were essentially equivalent with the exception of the deflection criteria under Failure Method. The remaining aspects including Test Method, the remaining Failure Method criteria, The Conditions of Acceptance/Evaluation and Test Specimen were essentially equivalent. Also, Additional Information was deemed insignificant for the comparison task.

A motion was recommended as follows:

The FPPF has identified a single difference between AC14 and EC017 relative to the structural fire resistance under the failure criteria. That difference is in the maximum allowable deflection and rate of deflection. FPPF is requesting input from 2 structural advisory committee members if these differences are significantly different, essentially equal or one is better than the other. The input is requested in advance of an October 6<sup>th</sup> meeting of the FPPF.

Motion: GM so moved      2nd: TR      Vote: 10-1-0      PD dissented

4. Evaluate and comment on code change proposals for exterior walls with foam plastic insulation

The FPPF continued its discussion on the code change proposals for exterior walls. A total of four code change proposals were submitted for review and comment. Some are proposed to the current 8<sup>th</sup> Edition and others are identified for the 9<sup>th</sup> Edition

A motion was made to recommend to the BBRS that they not entertain changes to the 8<sup>th</sup> at this time and handle all proposals as proposals related to the 9<sup>th</sup>.

In support of the motion it was identified that the Model 15 effort just concluded and the BBRS is underway with reviews for the 9<sup>th</sup> Edition. Also, it was noted the proposed changes to the 8<sup>th</sup> were not meeting the conditions for emergency amendment as previously explained. Therefore, the required process for adoption of code changes (EO 485 review, BBRS votes, postings, hearings, comment periods, etc. will result in a lengthy process that will parallel the 9<sup>th</sup> adoption and therefore only be in effect for a matter of weeks before the 9<sup>th</sup> is in effect.

In opposition to the motion it was identified that detailing for exterior walls is a “real” and “current” problem. Given the unique characteristics of every wall, and considering the criteria for NFPA 285 to be an “assembly” test (as opposed to components), most often the only viable method of obtaining approval is through engineering judgments.

Motion: TR so moved      2nd: GM      Vote: 8-3-0      MG, DC and HC dissented

The FPPF next took up the specific proposal for 1403.5 identified as Part 1 which exempts flashing as part of the weather barrier. The FPPF did not object to the proposal but noted that it does not follow the BBRS criteria of the Model 15 effort.

The FPPF next reviewed the specific proposal for 1403.5 identifies as part 2 which includes an exception for sprinklered low-rise buildings.

The ensuing discussion noted that the NFPA 285 is a measurement tool for exterior fire spread from both fire originating in the interior of the building and breaking out of openings as well as for fires originating on the exterior of the building. The latter from the simple measure of fire spread within the test protocol and criteria.

Members expressed concern that while the sprinkler protection in low rise buildings protects against fires originating inside the building, they do not address the fires originating on the exterior of the building. The origins of the exterior fire spread criteria were reviewed including some historical fires where the fire ignition was on the exterior of the buildings.

Members expressed more concern with NFPA 13R equipped buildings which allow omission of sprinklers in numerous concealed areas. Fire in these spaces can grow unchecked and lead to fire breaking through to the exterior and conversely exterior fires can spread into these areas.

The discussion next reviewed fire-fighting abilities for exterior fires as anecdotal comments were made in the other code proposals that fire department ladder trucks and other aerial equipment can address the low-rise building fires. Several commented on the challenges that face fire-fighting efforts even for low rise buildings including the fact that aerial access is most often not available to all façades. Frequently, only one side of the building is accessible with an aerial apparatus and then access to the fire becomes an “internal break through” effort (this is where fire department have to breach the exterior wall from the interior and create an opening to then access the fire and perform manual operations).

There was another point made that exterior fires require exceptional amounts of water to fight. Often the fire flow has been substantially reduced under the sprinkler allowance provisions in the fire flow calculation.

A motion was made to recommend denial of the code change proposal. Through friendly amendment it was added that if BBRS felt it was going to approve the proposal, they do so only with the following conditions: 1) only for low-rise buildings with NFPA 13 systems and 2) where fire flow analysis has been performed without sprinkler decrease allowances that shows adequate water is available.

Motion: KR so moved      2nd: TR      Vote: 9-2-0      WA and MG dissented

It was noted that the committee recognizes the “real problem” identified by the proposals and that members are willing to work with the proponents to develop alternative proposals that adequately address all technical concerns.

The subject of the two code change proposals to Chapter 26 were tabled until the next meeting so members could consider the new alternate approaches to the NFPA 285 test approach.

5. Additional Commenting via track change or red line editing of White Paper on fire protection.

The FPPF continued its discussion on the white paper. MG noted that BBRS staff will need FPPF’s comments in November in order to prepare all comments for the December BBRS meeting.

It was decided that in order to adequately address the white paper, the committee must first be on common understanding of when the code triggers the fire protection features to be provided.

Next the discussion turned to the existing building fire protection triggers in the work area method of Chapter 34. With a focus on existing residential 3 to 6 units, it was determined that the only the Alteration Level work areas need be focused on at this time. It was generally agreed that Alteration Level 1 work does not trigger sprinklering of the residential units.

Likewise, it was generally agreed that Alteration Level 3 which entails 50% or more of the building should require sprinklering of the building (in fact in communities where MGL Ch. 148 s 26I is adopted, 4 to 6 unit buildings would be required to be sprinklered under similar extent of work or cost expenditure). There was discussion about how Alt

3 sends users to Alt 2 provisions and the matter of municipal water supply and common egress still applied. It was noted that the IEBC deviated significantly from its basis document in this regard (NARRP).

The discussion evolved to Alteration Level 2, where the issue of water supply was reviewed. It was agreed that there was a large amount of subjectivity in the language but that the intent remained that a fire pump should not be required. It was also noted that supply to the floor was referring to a hydraulic analysis not a physical pipe installation with regard to “availability to the floor”. It was also acknowledged that there need to be a reliable water source immediately adjacent to the building (it was not the intent that a supply pipe need be brought from extended distances to the building).

The matter was tabled until the next meeting pending members further consideration.

6. Matters not reasonably anticipated within two business days of the meeting.

There were no new matters presented. The Chair reiterated that new matters should be submitted to the BBRS in writing.

7. Approval to adjourn the meeting

A motion was made to adjourn.

Motion: DL so moved      2nd: WA      Vote: 11-0-0